

Application/Control Number: 09/001,565

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CLMPTO

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1. (Once Amended) A splitter module for mounting in a Network Interface Device (NID) for providing a demarcation point between a pair of outside plant wires and a first and a second pair of inside wires, the first pair of inside wires for carrying a first signal, the second pair of inside wires for carrying a second signal and the pair of outside wires for carrying a combined signal of the first and the second signals, the NID having a housing defining an accessible interior and having a mounting surface therein defining a plurality of mounting locations, the splitter module comprising:
- (a) a block having a mounting footprint configured for removable attachment to at least one of the mounting locations;
  - (b) an outside plant pair of terminals located on the block and configured for having the pair of outside plant wires connected thereto;
  - (c) a splitter circuit housed in the block with a first pair of contacts electrically connected to the outside plant pair of terminals and a second pair of contacts, a first circuit component of the circuit electrically between the first and the second pair of contacts and designed to pass only the first signal from the first pair of contacts to the second pair of contacts;
  - (d) a first jack located on the block and electrically connected to the second pair of contacts;
  - (e) a first plug removably located in the first jack to provide a first demarcation point for the first signal;
  - (f) a first inside pair of terminals located on the block, electrically connected to the second pair of contacts through the first demarcation point and configured for having the first pair of inside wires connected thereto;
  - (g) a second inside pair of terminals located on the block, electrically connected to the outside plant pair of terminals so as to receive at least the second signal and configured for having the second pair of inside wires connected thereto;
  - (h) a second jack located on the block and electrically connected in series between the outside plant pair of terminals and the second inside pair of terminals; and
  - (i) a second plug removably located in the second jack to provide a second demarcation point for the second signal.
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2. The module of Claim 1 wherein the block is of a size to occupy two mounting locations and allow other modules to be placed in adjacent mounting locations.
3. The module of Claim 1 further comprising a second jack and second plug removably inserted therein located electrically in series between the outside pair of terminals and the second inside pair of terminals to provide a demarcation point for the signal received by the second inside pair of terminals.
4. The module of Claim 3 wherein the ~~splitter circuit~~ further comprises a third pair of contacts and a second circuit component located electrically between the first pair of contacts and the third pair of contacts and designed to pass only the second signal from the first pair of contacts to the third pair of contacts, and wherein the second jack is electrically connected to the third pair of contacts.
5. The module of Claim 1 wherein the ~~splitter circuit~~ further comprises a third pair of contacts and a second circuit component located electrically between the first pair of contacts and the third pair of contacts and designed to pass only the second signal from the first pair of contacts to the third pair of contacts.
6. (Once Amended) The module of Claim 1 further comprising a combined signal jack located electrically in series between the outside plant pair of terminals and the first pair of contacts to provide a third demarcation point for the combined signal.

7. The module of Claim 1 further comprising a protector located in the block for conducting  
5 surges to ground.

8. (Once Amended) A splitter module for mounting in a Network Interface Device (NID) for providing a demarcation point between a pair of outside plant wires and a first and a second pair of inside wires, the first pair of inside wires for carrying a first signal, the second pair of inside wires for carrying a second signal and the pair of outside wires for carrying a combined signal of the first and the second signals, the NID having a housing defining an accessible interior, the splitter module comprising:

- (a) a block of a size suitable for placement in the interior of the NID;
- (b) a splitter circuit housed in the block with a first pair of contacts for electrical connection to the pair of outside plant wires and a second pair of contacts, a first circuit component of the circuit electrically between the first and the second pair of contacts and designed to pass only the first signal from the first pair of contacts to the second pair of contacts;
- (c) a first inside pair of terminals located on the block electrically connected to the second pair of contacts and configured for having the first pair of inside wires connected thereto;
- (d) a second inside pair of terminals located on the block, electrically connected to the pair of outside plant wires so as to receive at least the second signal and configured for having the second pair of inside wires connected thereto;
- (e) a POTS jack connected to the block and configured to receive a first plug, the POTS jack electrically connectable to the second pair of contacts for testing the first signal by inserting the first plug into the POTS jack when the POTS jack is electrically connected to the second pair of contacts; and
- (f) a second jack connected to the block and configured to receive a second plug, the second jack electrically connectable in series between the first pair of contacts and the second inside pair of terminals for testing the second signal by inserting the second plug into the second jack when the second jack is electrically connected to the second inside pair of terminals.

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9. The module of Claim 8 further comprising a second jack and second plug removably inserted therein located electrically in series between the outside pair of terminals and the second inside pair of terminals to provide a demarcation point for the signal received by the second inside pair of terminals.

5 10. The module of Claim 9 wherein the splitter circuit further comprises a third pair of contacts and a second circuit component located electrically between the first pair of contacts and the third pair of contacts and designed to pass only the second signal from the first pair of contacts to the third pair of contacts, and wherein the second jack is electrically connected to the third pair of contacts.

10 11. The module of Claim 8 wherein the splitter circuit further comprises a third pair of contacts and a second circuit component located electrically between the first pair of contacts and the third pair of contacts and designed to pass only the second signal from the first pair of contacts to the third pair of contacts.

12. (Once Amended) The module of Claim 8 further comprising a combined signal jack located electrically in series between the pair of outside plant wires and the first pair of contacts for testing the combined signal.

13. The module of Claim 8 wherein the POTS jack is electrically connected to the second pair of contacts during normal operation.

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14. (Once Amended) The module of Claim 8 wherein the NID has a plurality of mounting locations and the block defines a mounting footprint that is removably attachable to at least one of the mounting locations.

15. (Once Amended) An xDSL splitter assembly, comprising

(a) a network interface device (NID) for providing a demarcation point between a pair of outside plant wires and a first and a second pair of inside wires, the first pair of inside wires for carrying a POTS signal, the second pair of inside wires for carrying an xDSL signal and the pair of outside plant wires for carrying a combined POTS and xDSL signal, the NID having a housing defining an interior with a plurality of mounting locations; and

(b) a splitter module comprising:

(i) a block with a mounting footprint to be received in at least one of the mounting locations;

(ii) an xDSL splitter circuit housed in the block with a first pair of contacts for electrical connection to the pair of outside plant wires and a second pair of contacts, a first circuit component of the circuit electrically between the first and the second pair of contacts and designed to pass only POTS signals from the first pair of contacts to the second pair of contacts;

(iii) a first inside pair of terminals located on the block electrically connected to the second pair of contacts and configured for having the first pair of inside wires connected thereto;

(iv) a second inside pair of terminals located on the block electrically connected to the pair of outside plant wires so as to receive at least the xDSL signal and configured for having the second pair of inside wires connected thereto;

(v) a POTS jack connected to the block and configured to receive a first plug, the POTS jack electrically connectable to the second pair of contacts for testing the POTS signal by inserting the first plug into the POTS jack when the POTS jack is electrically connected to the second pair of contacts; and

- (vi) an xDSL jack connected to the block and configured to receive a second plug, the ) xDSL jack electrically connectable in series between the first pair of contacts and the second inside pair of terminals for testing the xDSL signal by inserting the second plug into the xDSL jack when the xDSL jack is electrically connected to the second inside pair of terminals.

16. The assembly of Claim 15 further comprising at least one POTS line module mounted at a mounting location adjacent to the splitter module.

17. The assembly of Claim 15 wherein the NID further comprises an inner door that prevents unauthorized removal of the splitter module from its mounting location when in a closed position.

18. (Once Amended) A splitter module for selectively passing a first signal from a combined signal having the first signal together with a second signal, the splitter module comprising:

- (a) a housing;
  - (b) a first pair of terminals located on the housing;
  - (c) an RJ-11 jack located on the housing and an RJ-11 plug removably inserted in the RJ-11 jack to create a first demarcation point;
  - (d) a first splitter circuit located in the housing and electrically in series between the first pair of terminals and the RJ-11 jack, the first splitter circuit designed to pass only the first signal to the RJ-11 jack when the combined signal is transmitted through the first pair of terminals to the first splitter circuit; and
  - (e) an RJ-45 jack located on the housing and an RJ-45 plug removably inserted in the RJ-45 jack to create a second demarcation point, the RJ-45 jack electrically connected to a point between the first pair of terminals and the first splitter circuit.
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19. The splitter module of Claim 18 further comprising an RJ-45 jack located on the housing and an RJ-45 plug removably inserted in the RJ-45 jack to create a second demarcation point, the RJ-45 jack electrically connected to a point between the first pair of terminals and the first splitter circuit.

20. (Once Amended) The splitter module of Claim 18 further comprising a second splitter circuit located in the housing and electrically in series between the point and the RJ-45 jack, the second splitter circuit designed to pass only the second signal to the RJ-45 jack when the combined signal is transmitted through the first pair of terminals to the second splitter circuit.